1. (Previously presented) Dosing equipment for quantitative dosing of small amounts of liquids, comprising a body (1), a flexible bellows (5) attached to said body and defining a liquid space (15), a dosing tip (19) communicating with said liquid space, and an actuator (7) for moving said bellows so that constriction of said liquid space causes a dose to be discharged from said dosing tip, wherein said actuator (7) is formed of two parts (8, 9) moving relative to one another and acting magnetically on each other through an attracting or repelling force, one of the parts being attached to said body (1) of said dosing equipment and the other being connected to said bellows (5) to move it over a range of movement, said bellows acting with a spring force against said actuator, said actuator comprising one of two parts of a current coil (9) in cooperation with current adjusting means (12), said actuator working against said spring force of said bellows and generating movements of said bellows by changing magnitude of electric current passing through said coil, said current being adjustable with an adjusting range to permit selected dose volumes to be produced by said bellows movements of selected lengths within a range of movement.

2. (Previously presented) The dosing equipment according

to Claim 1, wherein said actuator is formed of a permanent magnet (8) attached to said body (1) of said dosing equipment, and a current coil (9) adjusted to a movable end (6) of said bellows (5).

3. (Previously presented) The dosing equipment according to Claim 1, wherein said actuator is formed of a current coil (9) attached to said body (1) of said dosing equipment, and a permanent magnet (8) adjusted to the movable end (6) of said bellows (5).

4. (Previously presented) The dosing equipment according to Claim 1 wherein said dosing equipment is provided with a flexible centralizer (13) between said body (1) and the moving parts of said device to linearize the movements of an end (6) of said bellows.

5. (Previously presented) The dosing equipment according to Claim 4, wherein said flexible centralizer (13) is formed of three or more equally spaced parallel helical springs (14) surrounding the moving parts of said dosing equipment.

6. (Previously presented) The dosing equipment according to Claim 4 wherein spring forces of said centralizer (13) and said bellows (5) have a resultant balancing said end (6) of said bellows at a position, on both sides of which said end (6)

may move depending on the direction of said electric current in said current coil.

7. (Previously presented) The dosing equipment according to Claim 5, wherein spring forces of said flexible centralizer (13) and said bellows (5) have a resultant balancing said end (6) of said bellows at a position, on both sides of which said end (6) may move depending on the direction of said electric current in said current coil.

8. (Previously presented) The dosing equipment according to claim 6, wherein a balance position of said end (6) of said bellows lies in the middle of a linear path thereof.

9. (Previously presented) The dosing equipment according to any of the preceding Claims 1, 2, or 3, wherein said body (1) of said dosing equipment comprises a cylindrical jacket (4), said bellows (5) and the moving part of said actuator (7) being axially arranged in sequence in a space defined by said jacket.

10. (Previously presented) The dosing equipment according to any of the preceding Claims 1, 2, or 3, wherein said liquid space (15) defined by said bellows (5) is provided with a separate filling channel (16) for said liquid to be dosed.

11. (Currently amended) Method for quantitative dosing of

small amounts of liquids, wherein a flexible bellows (5) defining a liquid space (15) is moved by an actuator (7) connected thereto to constrict the liquid space for discharging a dose from the dosing tip (19) communicating with the liquid space, characterized in that the actuator (7) is formed of a magnet (8) and a current coil (9) co-operating therewith, one of said ~~parts~~ magnet or said current coil being stationarily installed and the other moving the bellows (5), said method for quantitative dosing being carried out by a step of changing the magnitude of the electric current passing through the coil, so that the resulting shifting of the magnet and the coil relative to each other generates a serial dosing carried out by means of repeated movements of said bellows (5) in one direction.

12. (Previously presented) Method according to Claim 11, characterized in that the dosing is carried out from the dosing tip (19) as droplets into the air.

13. (Previously presented) Method according to Claim 11, characterized in that the magnitude of the electric current passing through the coil (9) is changed to set the end (6) of the bellows to an accelerated motion, and thereafter, by changing the electric current a new but in the opposite direction, this second change being smaller than the first

change, the motion of the end of the bellows is slowed down, thereby to give a specific initial acceleration to the liquid to be dosed from the dosing tip (19) in the first step, and to cause a sharp separation of the liquid droplet from the dosing tip by braking action in the second step.

14. (Previously presented) Method according to Claim 13, characterized in that the volume of the liquid droplet to be dosed is from 10 nl to 40 µl, preferably from 20 nl to 1 µl.

15. (Previously presented) Method according to Claim 11, characterized in that the dosing comprises a serial dosing carried out by means of repeated movements of the bellows (5) in one direction.

16. (Previously presented) Method according to Claim 15, characterized in that during the serial dosing, a flexible centralizer (14) acts on the end (6) of the bellows moved by the actuator (7) causing the resultant of the spring forces of the bellows and the centralizer to pass by a zero position at which the direction of the electric current passing through the coil (9) is reversed.

17. (Previously presented) Method according to any of the preceding Claims 11, 12, 13, or 14, characterized in that several parallel dosing bellows (5) are moved by the actuator

(7) simultaneously to carry out a serial dosing of matrix type.

18. (Previously presented) Method for quantitative dosing of small amounts of liquids, wherein a flexible bellows (5) defining a liquid space (15) is moved by an actuator (7) connected thereto to constrict the liquid space for discharging a dose from a dosing tip (19) communicating with the liquid space, characterized in that the dosing is carried out as dosing of droplets from the dosing tip (19) into the air by means of an actuator (7) driven by electric current comprising a first step of setting the end (6) of the bellows to an accelerated motion by changing the magnitude of the electric current passed to the actuator to give a specific initial acceleration to the liquid to be dosed from the dosing tip, followed by a second step of slowing down the motion of the end of the bellows by changing the magnitude of said electric current in the opposite direction to cause a sharp separation of a liquid droplet from the dosing tip.

19. (Previously presented) Method according to Claim 18, characterized in that the dosing comprises a serial dosing wherein change of the electric current in opposite direction in each second step is smaller than the preceding change in the respective first step.

20. (Previously presented) Method according to Claim 18 or 19, characterized in that the volume of the liquid droplet to be dosed is from 10 nl to 40 µl, preferably from 20 nl to 1µl.

21. (Previously presented) Dosing equipment for quantitative dosing of small amounts of liquids, comprising a body (1), a flexible bellows (5) attached to the body and defining a liquid space (15), a dosing tip (19) communicating with the liquid space, and an actuator (7) for moving said bellows so that constriction of said liquid space causes a dose to be discharged from said dosing tip, wherein said actuator is formed of two parts (8, 9) moving relative to one another and acting magnetically on each other, said two parts of said actuator being constituted by a current coil (9) and a magnet (8), said current coil being without contact with said magnet, one of said two parts being attached to said body of said device and the other being connected to said bellows to move it over a range of movement and said current coil generating movements of said bellows by changing the magnitude of an electric current passing through said coil, said current being adjustable within an adjusting range to let selected dose volumes be produced by said bellows movements of selected lengths within a range of movement.